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Industrial Management's Cost Control Committee Plan

Detailed Instructions for Its Organization and Operation

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Organization and Operation of the Cost Committee Plan

I NDUSTRIAL Management's Cost Control Committee Plan was devised as an effective means for building industrial "economy morale," for the primary purpose of re-establishing manufacturing profits.

To understand thoroughly the purpose and operation of this plan you must first understand just what we mean

by economy morale.

Economy is the watchword for 1922, and will be for some years to come. Economy, in industry, does not mean going without things that we need; using old, worn-out machines or cheap men or worthless methods. It means investing the company's energy most wisely—so it will bring in the greatest return.

Every industrial concern uses three forms of energy—man-hours, dollars and power. Whether an organization uses these forms of energy wisely and economically, or wastefully and ignorantly, determines whether it succeeds (and makes a profit) or fails. This statement is not new or radical—every executive will accept it as true and every progressive company takes systematic steps to inculcate economy and efficiency. But in nine hundred and ninety-nine plants out of every thousand, this effort toward economy is *superimposed*—in other words, through *disciplinary channels*.

Discipline and morale are two entirely different things, as one will readily see who stops to think a moment. The American army had much less discipline than the German army, but it overwhelmingly made up for this lesser discipline by better morale. The average American soldier in France was decidedly less expert at maneuvers than the average German soldier, but the American's heart and mind were keyed up to fighting pitch as well as his body. Morale and not discipline was what enabled individual American soldiers, such as Sergeant York and others, to single-handed defeat and

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capture fifty or more better drilled, better armed and better disciplined German soldiers.

In industry, as in war, we must have both discipline and morale, but when the test comes, the latter quality

is the one that wins the day.

During the remainder of this year of 1922—and probably for a number of years to come—economy must be the watchword for every industrial organization. Our available units of money, man-hours and power must be made to count effectively-wastes must be eliminated—a profit must be had if we are to survive, and had largely from what we have wasted or thrown away in the past. Indeed this economy is so vitally necessary that it is safe to say that those firms that do not now make it their primary policy will find the ones that do so taking the bulk of the business and all of the profits away from them. And this spirit of economy must pervade the ranks—it cannot be superimposed by the management, nor fully obtained through the individual effort of department managers—disciplinary measures and disciplinary channels, in other words, are not suitable nor sufficient for developing it successfully. To develop its full possibilities, it must be an economy morale created and inspired instead of being merely superimposed.

We believe that the Cost Control Committee Plan, outlined herein, is the most effective, practical and logical method of creating a real economy morale in any or-

ganization.

* * *

We believe in it thoroughly and completely because we have found, in our own organization, that it makes every intelligent and thinking employee strive just as forcefully for economy and waste elimination as do our executives and department heads.

THE MECHANICS OF THE COST CONTROL COM-MITTEE PLAN

Broadly speaking, this plan divides itself into two elements—the Mechanics of the Plan and the Operation of the Plan.

The Mechanics of the Cost Control Committee Plan consists in the formation of a number of committees,

in general independent from the permanent disciplinary organization, but drawing upon it appropriately for personnel. The primary functions of these committees, which are so organized and subdivided as to include the key (most active and influential) members of the non-executive personnel, are:

The Analysis of Manufacturing Costs and Expenses Detailed Waste Surveys in Assigned Processes Budget Control and Revision Suggestions for Specific Cost Cutting

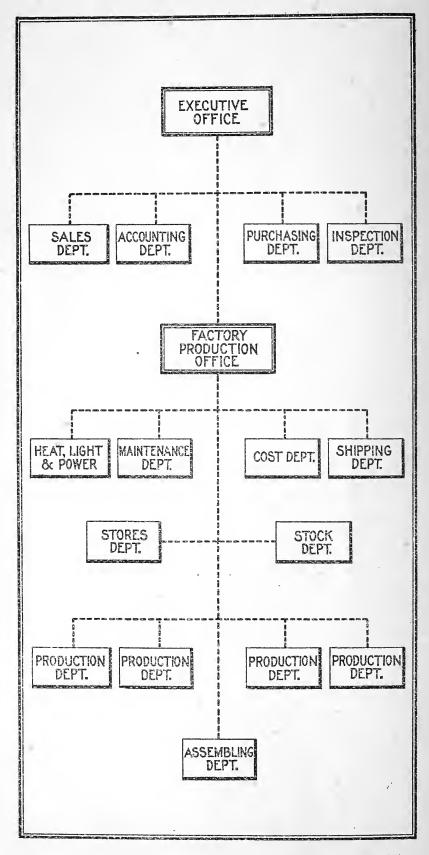
A Co-ordinating Committee, or central committee, controls the activities of five general committees covering the five primary industrial elements of Men, Methods, Machinery, Materials and Money. These five general committees are again subdivided into numerous sub-committees to suit the specific needs of the organization. The chart on page 6, shows a typical industrial organization and on the page facing it is shown a typical Cost Control Committee organization with its ramifications, adapted to this organization.

The make-up of the committee organization will, of course, vary with the need of your own plant and must be suited to it.

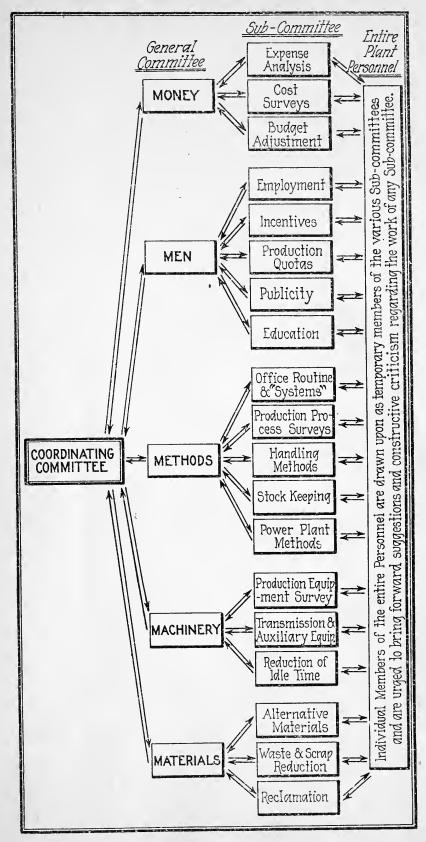
Individual industries vary in their components more widely than individuals vary in feature and temperament. In one plant, for example, labor is a small item. The process is almost entirely automatic and the big outstanding elements of cost are materials and power. If the cost control committees have a given number of dollars and hours to invest in a cost attack in this plant, the outstanding places to put it are in the purchase, handling, use and storage of material and the generation of power—not in reduction of direct labor.

Again there is the plant in which direct labor is the predominating item. The process, perhaps, requires great skill and a high degree of training, the quantities involved in manufacture are such that automatic machines are out of the question, the material cost and the power cost are insignificant compared with the item of labor.

Still another plant may show no very great disproportion between these three typical items of material, labor and power. In this case the committee organization



TYPICAL ORGANIZATION PLAN OF AVERAGE FACTORY.



COST CONTROL COMMITTEE ORGANIZATION SUITABLE FOR AVERAGE FACTORY.

must be such as to apply the greatest cost saving energy on that factor which is weakest, least efficient and therefore susceptible to most improvement. This, too, sounds axiomatic and one would say could scarcely be overlooked, but it is nevertheless and very frequently. Doubtless all who read this can call to mind factories which have elaborate cost and production systems, but very second rate mechanical equipment—a very pertinent demonstration of this truth.

It will be seen that industries vary so considerably in the relationships of their components of cost that, while each has many points of profitable attack, these will not necessarily coincide nor will the emphasis to be put on a certain point in one plant be equal to that which should be applied to the same point in another.

CO-ORDINATING COMMITTEE AND "MONEY" COMMITTEE FORM THE STARTING POINTS

It is for the above reason that we recommend that in installing the Cost Control Committee Plan, the initial step be forming the Co-ordinating Committee and the Money Committee. These, unlike the remaining General Committees and their subdivisions, are most suitably drawn almost entirely from the executive personnel. These two committees must, through their recommendations, devise the organization of the remainder of the committees and through the formation of the sub-committees, shape the general points of attack on wastes and excessive costs.

A suggested make-up for these two committees is as follows:

Co-ordinating Committee "Money" Committee

General Manager (Chair- Treasurer (Chairman)
man) Chief Accountant

Production Manager Cost Accountant

Heads of Production Departments

Production Manager
General Manager (Ex-off.)

The Money Committee first makes an analytical study of various groups of expenditures, with the purpose of segregating those items of expense which, due to their relative prominence, are considered promising fields for effort toward economy. The principle kept

in mind during this analysis is that a possible saving of 10% on an item involving \$100,000, for example, is more promising of results than applying the same time and energy, with equal possibilities, to a \$10,000 item. In other words, to make a start, aim to hit the high spots first. And the initial job of the Money Committee is to list the high spots.

The Money Committee then reports its findings and recommendations to the Co-ordinating Committee, which in the meantime has listed the weak spots. The high spots and the weak spots determine the general make-up of the remainder of the committees and of the subcommittees whose specific job is to find ways and means to reduce these high spots and strengthen the weak spots.

Thus far the work has followed disciplinary channels but from this point forward, the *morale element* is emphasized. The next step is to "sell" the plan to the organization as a whole, and this is the first task of the General Committee on Men.

A suggested make-up of the General Committee on Men is as follows:

Personnel or Employment Manager (Chairman) Sales Manager

Foreman of Production Department #1

Foreman of Production Department #2

Foreman of Production Department #3

Foreman of Production Department #4

Foreman of Assembly Department

Six of the most influential employees selected * from various departments.

The first activity of the General Committee on Men is to study the plan in full, as outlined in this booklet, and to thus familiarize itself with its scope and purpose. The second step is to have every member of this committee firmly convinced that economy and waste elimination is the policy that must be adopted throughout the organization—not only in order to have the company survive and progress but also because the wages and opportunities of every one in the organization primarily depends upon it. We recommend that this com-

^{*} May be elected if shop committee representation is in effect.

mittee study carefully the editorials in Industrial Management, January, 1922, page 1, and February, 1922, pages 65 and 98, which were written for the purpose of

demonstrating this truth.

The third step for the General Committee on Men is to explain the Cost Control Committee Plan to the organization as a whole so that every member of the organization understands that it is to his personal advantage as leading to permanency, full time employment, good wages and better working conditions, to coöperate faithfully and fully through suggestions, personnel economies and efforts to reduce waste.

In this connection it is timely to say that neither the Cost Control Committee Plan, nor any other plan which involves morale as distinguished from discipline, will succeed in organizations in which the management, whether deservedly or undeservedly, has the distrust of the employees. When such feeling exists any innovation is suspected of being merely an exploitation and is foredoomed to failure. Morale is a reciprocal proposition—it must exist in the management before it can exist among employees. Fortunately, however, in the average American industrial organization Management and Labor respect each other even if they disagree on certain subjects.

Again, to be successful, the economies resulting from the Cost Control Committee Plan must better the condition of those who help to effect them—and must be made known. Publicity is a fundamental concomitant to morale. Under the head of incentives, other than the direct financial incentives of bonus rewards, etc., that may be worked out by the *Incentives* sub-committee of the *General Committee on Men*, the following indirect incentives must be kept in mind:

The fact that every operative gains interest in his work in proportion to his knowledge of the process, the final use of the product and the relation of his work to these things. The work of the various committees, being largely educational, produces this result.

The fact that ambitious employees are given an opportunity to prove their fitness for promotion and get the attention of the management through their active participation in the plan and their practical suggestions for

waste elimination.

The fact that the records of the various committees and the savings resulting from their work, being made

public regularly, creates the "competitive interest" or "game" spirit which is recognized as a large factor in moral promotion.

The "Publicity" Sub-committee of the General Committee on Men has the function of keeping interest alive in the Cost Control Committee Plan after the novelty has worn off, by the frequent publication of results obtained, by installing graphic performance charts in various departments, by conducting a feature department in the plant magazine, etc.

THE THREE TECHNICAL GENERAL COMMITTEES

Thus far we have sketched the mechanics of the cost control committee organization as applied to the co-ordinating committee and the general committees on money and men. The remaining three general committees, namely, Methods, Machinery, and Materials, and their sub-committees may be described as "technical" since their functions are to make surveys, to elicit suggestions and to compose recommendations as applied to bettering specific technical components of the manufacturing process. The principle of subdivision into subcommittees based upon the study of the co-ordinating and money committees is to give each sub-committee a definite job and a practical job—in other words, to narrow its field beyond the point of generality or vagueness so that each sub-committee has something very specific to work upon instead of attempting to cover the whole field with its activities. This is a very important point, for it differentiates the plan very distinctly from the old "Suggestion System" which failed because of its generality and because under it effort was diffused instead of concentrated. These three technical committees should be composed with three distinct purposes in mind:

1. To incorporate in their membership the key members of the non-executive personnel who come most closely in contact with the subjects to be surveyed, and also such members of the executive personnel who are charged under the general disciplinary organization with the responsibility for definite results—relating to these subjects.

2. To secure as part of the membership a sufficient number of "detached viewpoints." Men are largely creatures of habit and those who are most intimate and familiar with existing ways of doing things come to regard them as satisfactory because these methods and processes

exist and do the work. It is important, therefore, to incorporate in each one of these three committees analytically-minded people who are not directly connected with the daily routine to be investigated and who would be inclined to question the reason for existence of various

processes and methods.

3. To incorporate as part of the membership of these three committees "general viewpoints" represented by those who have a broad knowledge of the general policy and plans of the organization and who are therefore in position to advise how suggested changes fit or do not fit into the general plan.

FUNCTIONING OF THE COST CONTROL COM-

The sub-committees function continuously, each member being urged to do these three things:

1. Discuss the problems and purposes of his committee with as many members of the general personnel as possible with a view of getting their ideas, viewpoints and suggestions.

2. To carefully comb current technical publications for ideas as to how other concerns handle the same problem.

3. To question each step in the process or system as to its necessity and after its necessity is established to question its efficiency.

Each sub-committee meets once a week to receive reports from individual members and to compose recommendations to its corresponding general committee. The general committees meet once a week, one or two days after the date of meeting of the sub-committees, to receive the reports of their sub-committees and to consider them. At such meetings the chairman of each sub-committee is present.

The members of the coordinating committee meet once a week preferably one or two days after the meeting of general committees to consider and act upon the recommendations transmitted, and also to make suggestions for new lines of effort for the various subcommittees or for the formation of new sub-committees on subjects which may develop as necessary or desirable.

In the functioning of these committees, as outlined above, it will be noted that the principle "direction of flow" of ideas, criticisms and suggestions, is *upward*, originating through the work of the sub-committees, in the operating or subordinate personnel and culminating in the co-ordinating committee which is largely

executive in membership. This is exactly opposite from the "flow of orders" through the disciplinary organization. The "rate of flow" of ideas, suggestions and criticisms will be a measure of the economy morale created by the committee on Men and of its sub-committee on Publicity.

Where the Budget Plan is in operation, the General and Sub-committees will be found exceedingly effective, not only in helping to control expenditures so that the budget figure is met, but also in helping to revise budget figures in a favorable direction. In fact, the Cost Control Committee Plan fits itself admirably either into an existing budget or as a means of creating and installing a budget plan in such plants as have not already taken this forward step.

A CONCRETE EXAMPLE OF COST CONTROL WORK

A concrete example of a typical Cost Control Committee activity will help the visualization of the operation of the plan. One of the findings of the Money Committee, for example, was that the "paper work" or order system of a certain plant amounted, in materials and labor involved, to 8% of the total production cost. This was considered an excessive amount and its survey was recommended to the General Committee on Methods through its sub-committees on Office Routine and Systems.

The members of this sub-committee first made sure that they understood each step involved in the practice in vogue—and to do this most effectively and easily, they mapped the routine on a chart, as described in "Planning"

Department Systems." *

After this was done, they questioned each step, first as to its necessity and next as to its efficiency, discussing the matter thoroughly and broadly with the operatives in each department who came into contact with the system in any way.

They found as a result of their survey that there were eleven distinct, unrelated, printed forms used, that six of these were of such nature as to be easily dispensed with by slightly altering the other five, and that

^{*} Industrial Management, November, 1920, page 373.

these five in turn could be so arranged as to be typed at one operation instead of written individually. They reported these facts to their General Committee, which went a step further and found that extra copies of the same form could be adapted to the needs of the Purchasing Department and the Billing Clerk, thus eliminating several more steps. The General Committee recommended to the Coordinating Committee that the new plan be installed, that a listing and billing machine of sufficient power to make all of the necessary copies at one time be purchased. It also recommended that the two shop clerks who were not needed under the new plan be transferred to production work.

The Co-ordinating Committee considered these suggestions and acted upon them, instructing the Purchasing Agent to secure the necessary forms and the new equipment, and also advising the Personnel or Employment Manager to place the two shop clerks at produc-

tive work.*

The *Publicity* Sub-committee of the *General Committee on Men* functioned in the above case by publishing or posting the facts of the case, explaining the new procedure and its superiority to the old one and calling attention to the new work of the replaced employees.

ANOTHER EXAMPLE OF COMMITTEE WORK

Another illustration along somewhat different lines: The Cost Survey Sub-committee of the General Committee on Money reported that the cost of a certain article was such as to require a selling price too high to develop its maximum possible sales market. This problem was handled by four sub-committees, as follows:

Sub-committee on Production Process Surveys:

Surveyed and analyzed the existing production process and invited suggestions as to simplification. Found that a slight change in design would eliminate three operations.

^{*}It is important that provision be made for all who are thus displaced through Cost Control Committee recommendations to be placed at other work with equal or better pay, and if possible with better opportunities. If this is not done, coöperation will cease. Committees of employees cannot be expected to help to uncover wastes and reduce them if this means depriving other fellow employees of a living. The responsibility rests upon the management to capitalize these economies in growth that will absorb, in productive work, those who are released from non-productive work.

Sub-committee on Production Equipment Survey:

Coöperated with above committee in search for machinery that would reduce production cost. Discovered that the purchase of an automatic machine would return 60% on investment in savings in first year.

Sub-committee on Alternative Materials:

Analyzed the material components of cost with the view of substitution of less expensive but equally suitable materials. Found that five operations could be eliminated by using die castings and that a sheet steel stamping could replace an expensive casting.

Sub-committee on Publicity:

Called attention, in advance of the investigation, to the facts which necessitated the reduction in cost. Published the results after they were obtained.

Co-ordinating Committee:

Readjusted the price of the article so that it would sell freely at a good profit.

WHY CANNOT THESE PROBLEMS BE LEFT TO MANAGEMENT?

One may say that all of these problems are part of the function of the management—therefore why erect this Cost Control Committee organization structure to do the work that management is supposed to do?

Leaving aside the necessity for developing economy morale, as outlined previously, by creating a flow of interest opposite in direction to the disciplinary flow of orders, there still remains a very good reason. No management, if we restrict this term to its usual inclusion of executives and department heads, has enough time or energy available to thoroughly cover one quarter of the profitable investigations that any live "Money" committee can suggest. A little thought in connection with the prospective activities of the several committees listed on page 17, will conclusively demonstrate this fact. It is only by making the word management embrace the entire personnel that it can become "hydra headed" enough to keep pace with the almost infinite possibilities for waste elimination and cost reduction.

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Recapitulation

Economy and Waste Reduction must be key-note policies in successful organizations for several years to come.

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Disciplinary measures and channels are not sufficient to induce maximum employee coöperation toward waste reduction, or in other words, to build economy morale.

* * * *

The Cost Control Committee Plan is a mechanism for intelligently directing creative thought on the part of the whole organization and for liberating a vast reserve of potential creative effort toward waste reduction.

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To succeed, it must be undertaken in a spirit of mutual coöperation for mutual benefit, and its success must be reciprocally applied.

Suggested Activites for Various Sub-Committees

Committee.

Function.

Money—Expense Analysis

A thorough survey of all items of expense and the segregation of "high spots" of large percentage for attack.

Money-Cost Analysis

Analytical study of product costs for the determination of "high spots."

Money-Budget Adjustments Revision of Operating Cost and Expense Budgets as the Cost Control Committee work progresses.

Men-Employment

Coöperation with employment manager in search for 'square pegs in round holes." Replacement of those displaced by waste reduction activities.

Men-Incentives

Recommendation of incentives, cash and otherwise, as direct stimulus for successful and noteworthy waste reduction.

Men-Production Quotas

Readjustment of production quota budgets as work of Cost Control Committees progress.

Men-Publicity

"Selling" the Cost Control Plan and keeping it "sold."

Men-Education

Explanation of various processes, uses of product, etc., as an aid to the work of the technical committees in securing practical suggestions.

Systems

Methods-Office Routine and Critical study of the use and efficiency of methods for handling routine, and their comparison with other plant practice.

Methods—Production Process Surveys

Step-by-step study of various manufacturing processes in order to either justify present practice or improve it by greater economies.

Methods—Handling

Analysis of methods of handling work between machines

and departments with view of simplification.

Methods-Stock keeping

Study of rates of transit and "idle time" of stock parts, with view to reducing investment in materials in process.

Methods-Power Plant

Comparison of present power costs to best practice and recommendations for waste reductions in power generation and distribution.

Machinery — Productive Comparison of efficiency of Equipment Survey available improved equipment

Comparison of efficiency of available improved equipment with present equipment, as adapted to the product manufacture.

Machinery — Transmission and Auxiliary Equipment

Study of transmission equipment, belting, elevators, conveyors, trucks, industrial trackage, motor fleets, etc., with view to comparison of efficiencies and improvement.

Machinery—Reduction of Idle Time

Systematic observation of shut downs, idle time, etc., with view to its reduction and consequent reduction of the "machine-hour" charge.

Materials-Alternatives

Study of materials composing the product with view to substitution of equally desirable but less costly components.

Materials—Waste and Scrap Reduction

Systematic inspection of all scrap, cuttings, waste, etc., with the view of tracing it to its source and reducing it.

Materials—Reclamation

Study of and search for means of reclaiming, utilizing or profitably disposing of unavoidable waste materials.

The above are but a few of the many profitable possibilities for Cost Control Committee Work. Read them over. Then ask yourself whether it is not distinctly worth while to get all of your progressive employees, in addition to your department heads, actively thinking along these lines?

The Cost Control Committee Plan will Solve Your Problems



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